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BEFORE THE STATE OF WASHINGTON
ENERGY FACILITY SITE EVALUATION COUNCIL

IN RE APPLICATION NO. 99-1

EXHIBIT ____ (KC-T)

SUMAS ENERGY 2 GENERATION
FACILITY

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APPLICANT'S PREFILED TESTIMONY

KATY CHANEY

Q. Please re-introduce yourself to the Council.

A. My name is Katy Chaney. I am Manager of Pacific Northwest Environmental Services at URS Corporation in Seattle. URS is the international environmental and engineering consulting firm that acquired Dames & Moore in June 1999. As Manager of Pacific Northwest Environmental Services for URS, I manage environmental permitting efforts, environmental assessments, environmental impact statements, land use, energy and natural resource compliance evaluations, air quality, noise, planning and siting studies, and assist with land use, shoreline and construction permits. My educational and professional background is described in greater detail on my resume, which was previously introduced into evidence as Exhibit 22.1.

EXHIBIT ____ (KC-T)
KATY CHANEY'S
PREFILED TESTIMONY - 1

[/Chaney]

PERKINS COIE LLP
1201 Third Avenue, Suite 4800
Seattle, Washington 98101-
3099
(206) 583-8888

1 **Q. What is the subject of your testimony?**

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3 A. My direct testimony is intended to address the following subjects:

4 First, I will briefly provide some background information regarding URS' role with
5 the Second Revised Application for Site Certification.
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8 Second, I will describe the changes that have been made to the Sumas Energy 2 (SE2)
9 Generation Facility since the last hearing, as described in our June 29, 2001
10 Application for Site Certification.
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17 **Background**

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19 **Q. What has been URS' involvement with the SE2 application?**

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21 A. In mid-1998, SE2 engaged Dames & Moore to prepare the Application for Site
22 Certification for the Sumas Energy 2 Generation Facility, originally filed with the
23 Council in January 1999, as well as updated pages filed with the Council in January
24 2000. We prepared the Second Revised Application, submitted in June 2001. I will
25 refer to the Second Revised Application simply as "the Application." (Exhibit KC-3)
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33 **Revisions to the Project**

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35 **Q. In general, how does the Second Revised Application differ from the Application**
36 **filed with the Council in January 2000?**

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39 A. The Second Revised Application incorporates the changes to the project design and
40 mitigation outlined in SE2's Motion for Reconsideration filed last March. We have
41 also updated the Application to reflect commitments made in stipulations agreed upon
42 prior to the first round of hearings and to include more recent information that has
43 become available.
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1 **Q. Please briefly describe the major changes in the project design and mitigation**
2
3 **contained in the Second Revised Application.**

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5 A. There are ten primary changes in the project design and mitigation proposals:
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8 1. Elimination of back-up fuel option. SE2 has eliminated the back-up oil
9 firing option. The project will operate only on natural gas. Elimination of this option
10 helps address air quality concerns, by significantly reducing the project's maximum
11 daily emissions. It also alleviates any environmental and safety concerns that were
12 related to the 2.5 million gallon storage tank. In addition, eliminating the oil storage
13 tank also substantially reduces the footprint of the facility. This change also avoids
14 the traffic impacts associated with trucking fuel oil to the site.
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18 2. Reduced NOx and ammonia emissions. Recent technological advances
19 have enabled SE2 to reduce NOx emissions to 2 ppm, and to reduce ammonia
20 emissions to a maximum of 5 ppm. SE2 has committed to these levels of emission
21 controls in this Application. Eric Hansen and Sanya Petrovic will be testifying about
22 the implications of these changes.
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26 3. Additional Air Quality Improvement and Mitigation. Included in the
27 Second Revised Application is a commitment to offset NOx and particulate matter
28 emissions in the airshed. SE2 has proposed to submit a plan to the Council to offset
29 NOx and particulate matter emission from the S2GF by reducing actual emissions in
30 the Fraser Valley airshed. If SE2 is unable to privately negotiate and implement
31 offset projects, it has offered in the alternative to create a \$1.5 million fund to be used
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1 for improvement of air quality in the airshed and to be administered jointly by the
2 Washington Department of Ecology and British Columbia Ministry of Environment,
3 Lands and Parks. Chuck Martin and Eric Hansen will be testifying about the offset
4 proposal.
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10 4. Greenhouse Gas Mitigation. In response to concerns and criticisms that its
11 prior voluntary commitment to greenhouse gas mitigation was insufficient, SE2 has
12 committed to mitigate and offset greenhouse gas emissions from the S2GF according
13 to the monetary path under the Oregon Energy Facility Siting Council's established
14 program. Chuck Martin, David Montgomery and Richard Keefe will be testifying
15 about this proposal.
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24 5. Monitoring and Mitigation for Impacts to Private Water Supplies. The
25 Second Revised Application includes a proposal to address concerns regarding the
26 possibility of impacts to private water wells. The proposal includes monitoring to
27 confirm the potential zone of influence impacted by water withdrawals for SE2,
28 identification of all wells within the zone of influence, monitoring those wells, and
29 mitigating adverse impacts, both in the United States and Canada. Burt Clothier will
30 testify further about this proposal.
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41 6. Flood Modeling. In consultation with the Whatcom County Public Works
42 Department, River and Flood Section and the City of Sumas, SE2 proposes to
43 perform unsteady flood modeling of the Site for storms approximating the 10, 25, and
44 50-year flood events and for the 100-year flood event, and to evaluate potential
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1 adverse off-site impacts. We have reviewed Whatcom County's existing model and
2 Sherrie Chang has identified a number of items that would first need to be done to the
3 model to tailor it to the SE2 site. We also need to confer with Whatcom County's
4 flood planner and agree upon the storm events that can be used to approximate the
5 smaller (10, 25 and 50 year) flood events. Once the input parameters are corrected to
6 specify the results for the SE2 site, and the additional flood events are defined, we
7 expect that the computer run time for the model will be approximately 6 weeks. At a
8 minimum, at least six months prior to construction, SE2 will submit for the Council's
9 approval a report of the unsteady modeling results and recommendations for
10 reasonable mitigation of any adverse off-site impacts. Sherrie Chang of URS will be
11 testifying regarding the model, and Doug Sovern will be testifying about the potential
12 mitigation measures available, in the unlikely event that the modeling identifies
13 impacts that need to be mitigated.
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29 7. Seismic Study. Prior to construction, SE2 will perform a probabilistic
30 seismic hazard analysis (PSHA) based on site specific geologic conditions. In the
31 final project design, SE2 will develop site specific seismic design criteria for the
32 S2GF for foundation and major equipment design. Such design criteria will be
33 developed based on the results of the PSHA, and, at a minimum, the proposed facility
34 and water pipelines will be designed to comply with Seismic Zone 3 standards of the
35 Uniform Building Code (UBC). Mark Molinari and Allan Porush from URS will be
36 testifying concerning the seismic study and the mitigation measures that can be included
37 in the design should the study show the need.
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1 8. Monitoring for Low Frequency Noise. To address additional concerns
2 about noise, SE2 will monitor sound levels before construction and after operation of
3 S2GF. In addition to monitoring sound metrics related to demonstrating compliance
4 with County and City noise regulations, SE2 will evaluate low frequency sounds and
5 tones. The monitoring shall include a minimum of 12 locations up to a distance of
6 3.5 miles from the plant. SE2 will select measurement locations in concert with City
7 of Sumas or Whatcom County staff, focusing on residential locations. Post
8 operational noise measurements will begin within two months of the commencement
9 of operation. If monitoring indicates that the plant is not in compliance with City and
10 County noise regulations or that S2GF generates low frequency sounds or tones that
11 City and County noise regulation staff jointly agree are reasonably objectionable, SE2
12 engineers will investigate the source of the noise and identify one or more means of
13 mitigating the noise. At the end of the S2GF's first operational year, SE2 will submit
14 for the Council's approval a report providing the pre- and post-operation monitoring
15 results and any mitigation plan found to be necessary. Frank Brittan will be testifying
16 later specifically as to the monitoring and potential mitigation measures for low
17 frequency noise.
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37 9. Wetland Mitigation and Stormwater Proposal. The plant site is 37.39
38 acres, and the area to be developed is approximately half of that area, or 19.39 acres.
39 The construction of the project will cause the filling of 9.45 acres of farmed wetland
40 that is currently being plowed annually for use as a corn field. To compensate we are
41 proposing to permanently set aside the entire 18.16 acre western portion of the site for
42 wetland enhancement, creation, or buffer – the "West Mitigation Area", to acquire 4.4
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1 acres immediately adjacent to the site for additional wetland enhancement, creation
2 and buffer – the Port of Bellingham Property or "East Mitigation Area", and to add
3 vegetation to the 2.78-acre median strip south of the site to act as wetland buffer.
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8 During my testimony last year, I showed you an diagram depicting the proposed
9 wetland mitigation area. This diagram is provided again as Exhibit KC-1 for your
10 convenience in comparing the previous plan with the current plan. As you will note,
11 the previous plan had the stormwater ponds located in the western area of the site, and
12 the diesel tank and its containment berm were located on the southeast portion of the
13 site. Under the current plan, the diesel tank has been removed and the stormwater
14 ponds have been relocated the area where the tank used to be located. This has the
15 effect of reducing wetland impacts on the western portion of the site, and allowing
16 additional area for wetland enhancement and creation. This is shown in Exhibit KC-
17 2, which is similar to Figure 3.4-5 from the Application, but also reflects the
18 conversion of the 2.78-acre median strip to upland forest. David Every will be
19 testifying later as to the specific details of the wetland mitigation plan.
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35 10. Need and Consistency. SE2 has proposed to comply with the "Need and
36 Consistency" requirements contained in Site Certification Agreements approved by
37 the Council with respect to two other generating facilities. This includes entering into
38 one or more power purchase agreements for the purchase and sale of at least 60% of
39 the design capacity of the S2GF for a term of at least 5 years; and ensuring that for
40 any purchaser of more than 40% of the power, either (a) the purchaser has adopted an
41 integrated resource plan, or has reviewed commercially available supply and demand
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1 side resources, (b) the purchaser is located in the service territory of a utility that has
2 an integrated resource plan, or (c) the project is consistent with the priorities and
3 principles of the Northwest Conservation and Electric Power Plan.
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9 **Q. You also mentioned that some changes had been made in the Second Revised**
10 **Application to reflect stipulations entered into during the previous round of**
11 **hearings. Can you summarize those changes?**
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15 **A.** The Second Revised Application has been revised to reflect stipulations that were
16 entered into before the first round of hearings. These are not new changes to the
17 project, but they are reflected as changes since the January 2000 application:
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20 1. Water Use. The Application reflects the reduction in peak and average
21 water usage agreed to with the City of Sumas, as well as further reductions in water
22 usage based on subsequent design information regarding water usage.
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25 2. Wastewater Volume. The Application reflects the reduced volume of
26 waste water discharge agreed upon with the City of Sumas. As explained during the
27 prior hearings, the implementation of a reverse osmosis system has allowed SE2 to
28 reduce the maximum wastewater flow by more than 90 percent, from 350 gpm to 34
29 gpm. The total combined wastewater flow from the S2GF and the existing Sumas
30 Cogeneration Company, LP (SCCLP) plant will not exceed 80,000 gpd, the amount
31 currently contracted for the SCCLP plant.
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35 3. Protection of Public Water Supplies. The City of Sumas public water
36 system has the resources, through City owned water rights, to meet its current and
37 projected future needs while satisfying SE2's water demand. As part of the stipulation
38 with the City of Sumas SE2 has volunteered to provide the City with \$25,000 per year
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1 to fund aquifer protection efforts and water rights acquisition, and SE2 has
2 volunteered to pay for a nitrate treatment facility if such as facility became necessary.
3 wells. These commitments are incorporated in the Second Revised Application.
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8 By way of clarification, I should note that we did not revise the Application to include
9 all of the specific commitments contained in the stipulations with WUTC, WDFW
10 and WDOE. SE2 has separately reaffirmed its commitment to the WUTC stipulation.
11 SE2 continues to agree with the principles contained in the WDFW and WDOE
12 stipulations, but is currently working with those agencies to revise the stipulations as
13 appropriate in light of the project changes contained in the Second Revised
14 Application. We would anticipate that if the Council accepts the agreements reached
15 between the applicant and WUTC, WDFW and WDOE, the elements of those
16 agreements would be incorporated into the Site Certification Agreement.
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27 **END OF DIRECT TESTIMONY**
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